

# ELECTROACTIVE POLYMER SENSORS

## ABSTRACT OF THE DISCLOSURE

5           The invention provides sensors that comprise a transducer that converts between  
mechanical energy and electrical energy. The transducer comprises an electroactive polymer  
in electrical communication with at least two electrodes. When a relatively small voltage  
difference is applied between the electrodes, deflection of the polymer results in a  
measurable change in electrical energy for the transducer. The change in electrical energy  
10   may correspond to a change in resistance, capacitance, or a combination thereof. Sensing  
electronics circuits in electrical communication with electrodes detect the electrical energy  
change.

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